COLORADO DISCHARGE PERMIT SYSTEM (CDPS)
FACT SHEET TO MODIFICATION 1
PERMIT NUMBER CO0001147
SUNCOR ENERGY (USA) INC., COMMERCE CITY REFINERY
ADAMS COUNTY

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I. TYPE OF PERMIT

A. Permit Type: Major Industrial, Modification 1 – Minor Amendment
B. Discharge To: Surface Water

II. FACILITY INFORMATION

A. Facility Type: Manufacturing and Other Industries

B. Facility Classification: Class A per Section 100.6.2 of the Water and Wastewater Facility Operator Certification Requirements

C. Facility Location: Latitude: 39° 48' 18" N, Longitude: 104° 56' 35 " W

D. Permitted Features: 002A/002B, following process and prior to mixing with the receiving stream.
39° 48’ 51” N, 104° 56’ 85”W
003A/003B, following process and prior to mixing with the receiving stream. 39° 48' 51" N, 104° 56' 85" W
010A and 020A, 39° 48’ 51” N, 104° 56’ 85”W

III. PURPOSE OF MODIFICATION

This permit was originally issued on September 27, 2012, with an effective date of November 1, 2012. In a letter dated October 26, 2012, Suncor requested an appeal of the benzene limits for Outfalls 003, 010A, and 002A. The Division considered Suncor’s request to reconsider the benzene effluent limits and associated terms and conditions in the permit. The Division is initiating this modification to resolve issues associated with the appeal.

The benzene limits that were appealed include both technology based and water quality based effluent limits. The benzene established for outfall 003A is a BPJ-based effluent limit, a type of technology based effluent limit. The Division relied on published information available from EPA, specifically information included in EPA’s Model NPDES Permit for Discharges Resulting From The Cleanup of Gasoline Released From Underground Storage Tanks (June 1989), as summarized and referenced in the permit documents. EPA established a technology based benzene limit of 5 ug/l as a daily maximum, based on a 99.5% removal efficiency.

The Division found that air stripping, as a treatment technology, has been and remains in use for the purpose of providing treatment of the groundwater remediation source discharged through outfall 003A. The Division evaluated data available on the permit record which demonstrated that the air stripping technology in place is effective in providing the level of treatment necessary to meet the benzene technology based effluent limitation established in this permit renewal action, and therefore no compliance schedule was needed. As such the Division applied the effluent limitation consistent with how it was developed and expressed in the supporting document, including the effluent limit magnitude (5 ug/l) and averaging period (daily maximum).

EPA documented that the technology based effluent limitation for benzene was based on the use of air stripping as a technology, since that technology has been demonstrated to be effective in removing benzene, is widely used and readily available, and is generally less expensive than other available treatment technologies. EPA noted that the approach does not specify the actual treatment that must be used, and instead justifies BPJ effluent limitations that are achievable with existing technology.

The benzene effluent limitations applied at outfalls 010A and 020A are water quality based effluent limitations (WQBELs). In this case the Division made a qualitative determination, based on the high levels of benzene in Suncor's influent that without adequate treatment the discharge has the reasonable potential to cause or contribute to a violation of water quality standards.

The WQBELs for benzene were derived from the water quality standard applied to Segment 15 of the South Platte River, including the magnitude (5 ug/l) and averaging period (30 day average). In developing WQBELs, the Division's standard practice for a receiving water such as Segment 15 of the South Platte River, is to evaluate the assimilative capacity of the receiving water, and allow dilution on the basis of the allowance of mixing zone. Based on an evaluation of upsteam ambient water quality concentrations no assimilative capacity was available in the receiving water and the effluent limitation was established at a level equal to the water quality standard.

The Division recognizes the ongoing efforts of Suncor to remediate the seep emanating from the permitted facility, and the improvement in South Platte River water quality that has occurred since the seep originated. The Division is initiating this permit modification to include an additional statement in the permit to clarify that further remediation of the seep would constitute a material alteration of the facility or activity, and could provide a basis for permit modification, including analysis of a WQBEL based on the availability of assimilative capacity in the South Platte River.

Therefore, this modification is being completed to add the agreed on statement that 'This includes additional remediation of the seep emanating from the permitted facility which would contribute to the availability of assimilative capacity in the South Platte River and a WQBEL calculated with the available dilution.' This statement will be added to Part II.B.5 of the permit.

IV. CHANGES TO PERMIT

The statement 'This includes additional remediation of the seep emanating from the permitted facility which would contribute to the availability of assimilative capacity in the South Platte River and a WQBEL calculated with the available dilution.' has been added to Part II.B.5 of the permit.

Kenan Diker
April 19, 2013

V. PUBLIC NOTICE COMMENTS

The public notice period was from April 19, 2013 to May 20, 2013. No comments were received during the public notice period.

Kenan Diker
May 21, 2013